## ATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau

WO 2004/017613 A1

(43) International Publication Date 26 February 2004 (26.02.2004)

**PCT** 

## (10) International Publication Number

(51) International Patent Classification7:

H04M 1/00

(21) International Application Number:

·(12) INTERNATIONAL APPL

PCT/US2003/025577

(22) International Filing Date: 14 August 2003 (14.08.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/404,104

15 August 2002 (15.08.2002)

(71) Applicant (for all designated States except US): KHY-BER TECHNOLOGIES CORPORATION [US/US]; 3009 Smith Road, Suite 600, Fairlawn, OH 44333 (US).

(72) Inventor; and

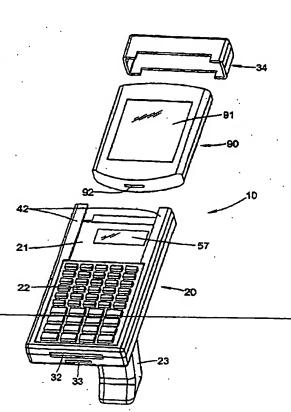
(75) Inventor/Applicant (for US only): KUMAR, Rajendra [US/US]; 712 Stonecliff Drive, Arkon, OH 44313 (US).

(74) Agents: CLARK, Robert, J. et al.; Hahn Loeser & Parks LLP, 1225 West Market Street, Akron, OH 44313-7188 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, · LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FL, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: PORTABLE DATA ENTRY DEVICE WITH A DETACHABLE HOST PDA



(57) Abstract: An apparatus and method are disclosed that can adapt off-the shelf PDA devices (90) to user input/output applications such as data entry applications and cellular phone applications. The resulting apparatus (10) may be sized and shaped to be durable and facilitate handheld operation when the user is mobile during use. The apparatus provides features required for portable data entry such as key entry, barcode scanning, radio frequency identification, and wireless local area network (LAN) as well as wide area network (WAN) communications. The apparatus may be operated (a) in a slave mode with inclusion of a PDA device (90) for use in certain input/output operations that are processor intensive as well as (b) in a stand-alone mode without inclusion of a PDA device (90) for use in certain other input/output operations that are not processor intensive.